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TWO NEW SPECIES OF APHAERETA WITH NOTES ON OTHER NEARCTIC SPECIES

(HYMENOPTERA: BRACONIDAE: ALYSINAE)

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ABSTRACT—Two new species of reared *Aphaereta* are described: **muesebecki** from Mississippi, reared from *Fannia canicularis* and *Musca domestica*; and **colei** from Massachusetts and Connecticut, reared from *Aulacigaster leucopeza*. New locality and host records are given for two other species.

The genus *Aphaereta* Foerster, the species of which are parasites of dipterous larvae, was revised for the Nearctic Region by Fischer (1966) who presented a key and descriptions of the nine species known

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at that time. The present paper includes descriptions of two reared new species and additional locality and host records for two previously described species.

I take great pleasure in acknowledging the help and assistance to my studies of the Braconidae that I have received from C. F. W. Muesebeck during the past eight years.

***Aphaereta muesebecki*, n. sp.**

(Figs. 3-5)

This species runs to couplet 7 in Fischer's key, but it can easily be separated from *masoni* McComb by its distinctly impressed notauli, a character which will distinguish it from all described Nearctic species.

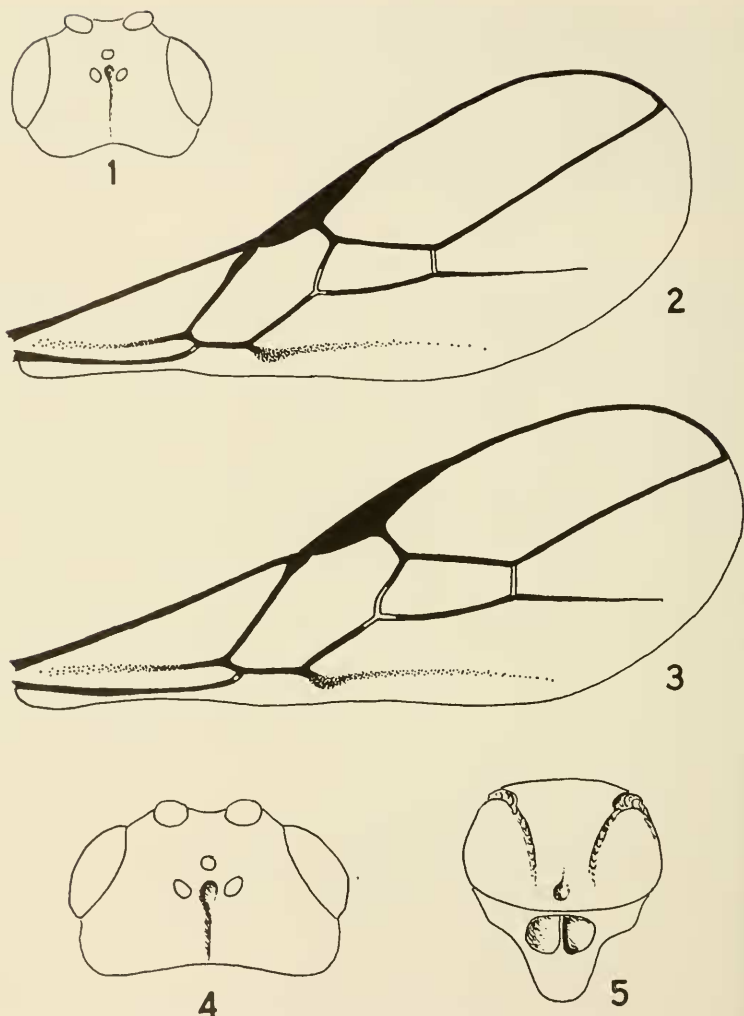
Female.—Length of body, 2.0-2.5 mm; ovipositor, 0.25-0.5 mm. Head and flagellum black; mandibles, scape and pedicel brownish yellow; mesonotum except posterior margin, mesopleural disc and mesosternum black; prothorax, posterior margin of mesonotum, scutellum and propodeum reddish brown; legs yellow brown; first abdominal tergum reddish brown, remainder of abdomen and ovipositor sheaths black. Head smooth; face with long fine black hair; eyes sparsely covered with short hair; temples in dorsal view swollen but not beyond eye margin (fig. 4); face slightly broader than high; vertex with a longitudinal groove beginning as a deep pit between lateral ocelli and extending to occiput; antennae 22-segmented, second flagellar segment very slightly longer than first; middle tooth of mandible pointed, inner and outer teeth broadly rounded. Propleuron smooth except for a longitudinal crenulate furrow; mesonotum (fig. 5) smooth, with deep median pit before scutellar furrow; notauli distinct, crenulate, nearly parallel, extending well past middle of mesonotum; scutellar furrow deep, with one distinct median longitudinal carina; scutellar disc smooth; mesopleural disc and mesosternum smooth and polished; mesopleural and subalar grooves wide, crenulate; propodeum coarsely rugose, with one central and two apicolateral tubercles. Wing venation as in fig. 3; second segment of radius nearly four times as long as first segment. Legs thickly hairy; inner side of hind tibia at apex and third tarsus with dense clothing of hair; tarsal claws long and slender. First abdominal tergum longer than apical width, longitudinally striate, two posteriorly converging keels meeting at about apical $\frac{1}{3}$ of tergum; remainder of abdomen smooth and polished; ovipositor sheaths protruding beyond apex of abdomen by not more than $\frac{1}{3}$ length of hind tibia, sheaths with a few scattered long hairs.

Male.—Essentially as in female; antennae 25-segmented.

Holotype Female.—State College, Mississippi, 31 July 1968, reared from *Fannia canicularis*. USNM type no. 70573.

Paratypes.—4 ♀♀, 4 ♂♂, State College, Mississippi, 31 July to 6 August 1968; 6 reared from *F. canicularis*, 2 from *Musca domestica*. All paratypes deposited in U. S. National Museum.

Hosts.—Reared from the little house fly, *Fannia canicularis* (L.) and the house fly, *Musca domestica* L. [Muscidae]; pupae were collected in chicken houses and parasites sent for identification by J. H. Jarratt.



Figs. 1 & 2, *Aphaereta colei*, n. sp.: 1, ♀ head, dorsal view; 2, ♀ fore wing. Figs. 3-5, *A. muesebecki*, n. sp.: 3, ♀ fore wing; 4, ♀ head, dorsal view; 5, ♀ mesonotum and scutellum, dorsal view.

***Aphaereta colei*, n. sp.**

(Figs. 1-2)

This species runs to couplet 2 of Fischer's key, but is easily distinguished from *excavata* McComb by its dark brown rather than orange body color. It is most similar to *pallipes* (Say) but is distinguished by its longer and lighter colored first segment of the flagellum.

Female.—Length of body, 1.75–2.0 mm; ovipositor, 1.0 mm. Head, thorax and abdomen dark brown or black except scape, pedicle, first flagellar segment, proepisternum, lower portion of propleuron, first abdominal segment and legs, which are yellow. Head smooth; face slightly wider than high, sparsely covered with black hair; eyes with scattered short hair; temples narrow, not bulging, receding behind eyes (fig. 1); vertex with deep pit between lateral ocelli and weak line extending to occiput; antenna 19- to 20-segmented, second flagellar segment very slightly longer than first segment. Thorax smooth and polished; notauli indicated only at extreme anterior ends; mesonotum without median pit before scutellar furrow; scutellar furrow shallow, with one median longitudinal carina; subalar furrow smooth; mesopleural furrow shallow, weakly crenulate; propodeum with distinct lateral carinae and basal carina which is forked, areola parallel sided. Wing venation as in fig. 2; second segment of radius above five times as long as first segment. Legs densely hairy; tarsal claws long and slender. First abdominal tergum about as long as apical width, weakly striate, posteriorly converging keels do not meet before reaching posterior edge of tergum; remainder of abdomen smooth and polished; ovipositor sheaths longer than hind tibia, with moderate covering of long hair.

Male.—Essentially as in female.

Holotype Female.—Rockport, Massachusetts, 5 July 1968, E. J. Cole, Jr., ex *Aulacigaster leucopeza*. USNM type no. 70574.

Paratypes.—20 ♀♀, 13 ♂♂, Rockport, Massachusetts, Storrs, Connecticut and Manchester, Connecticut, June–August, 1968, E. J. Cole, Jr.; 11 reared from *A. leucopeza*. Paratypes deposited in U. S. National Museum and the University of Connecticut, Storrs.

Host.—Reared from *Aulacigaster leucopeza* (Meigen) [Aulacigasteridae] breeding in elm tree slime flux.

Aphaereta pallipes (Say)

In addition to the hosts listed in Muesebeck and Walkley (1951) and Muesebeck (1967), I have seen specimens reared from *Ravinia latisetosa* Parker [Sarcophagidae]. Furthermore, Sanders and Dodson (1966) report this species reared from *Ravinia querula* (Walker), *Sarcophaga ventricosa* Wulp [Sarcophagidae] (now in the genus *Oxysarcodexia* according to Downes, 1965) and *Orthellia caesarion* (Meigen) [Muscidae].

Aphaereta varipedis Fischer

I have seen specimens from Cranberry Glade, West Virginia, and Piedmont, Virginia; the species was originally described from Ithaca, New York.

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**HAMOPHTHIRIUS GALEOPITHECI MJÖBERG REDISCOVERED;
WITH THE DESCRIPTION OF A NEW FAMILY OF SUCKING LICE
(ANOPLURA: HAMOPHTHIRIIDAE)**

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ABSTRACT—The genus *Hamophthirus* Mjöberg, and species *H. galeopitheci* Mjöberg, from a Bornean dermopteran, *Cynocephalus variegatus*, are redescribed, and a new family, **Hamophthiriidae**, named to contain the species. *H. galeopitheci* is of primary occurrence on *C. variegata* and is not related to either the hoplopleurid lice infesting tree shrews and lemurs, or to the primate-infesting lice: *Pthirus*, *Pediculus*, and *Pedicinus*. Therefore, the structure of *Hamophthirus* offers no new evidence of relationships amongst lice found on insectivores and primates. However, since dermopterans and bats are considered to have arisen from the same stock, the presence of a primary anopluran species on a dermopteran suggests that absence of Anoplura on bats represents a secondary loss.

The problem of affinities of the insectivores and primates has been approached on the part of entomologists through a study of their lice. Some seemingly obvious relationships amongst the Anoplura of tree shrews and lemurs have encouraged students of the Anoplura to hope that the enigmatic *Hamophthirus galeopitheci* Mjöberg—not seen since originally described—might prove to be another connecting link between the insectivores and the primates. *H. galeopitheci* was from *Cynocephalus* (= *Galeopithecus*) *variegatus* (Audebert), a member of the order Dermoptera, which has been called by Buettner-Janusch (1963) “[possibly] a second line of effort in the attempt to develop a primate type.” Furthermore, dermopterans or flying lemurs are regarded by Simpson (1945) as being derived from the same stock as the Chiroptera (bats), but chiropterans do not have anopluran ectoparasites. Since bats do have many other ectoparasites including very specialized dipterans and hemipterans, the lack of lice has puzzled ecto-